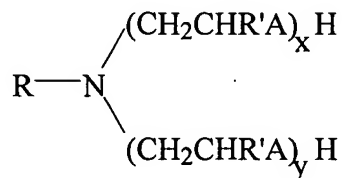


## Claims

What is claimed is:

- [c1] A method of controlling the inversion of a drilling fluid, wherein the drilling fluid includes: an oleaginous fluid; a non-oleaginous fluid; an amine surfactant having the structure

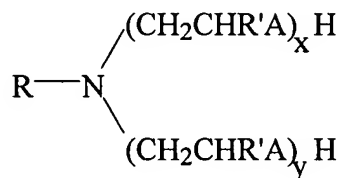


wherein R is a C<sub>12</sub>-C<sub>22</sub> aliphatic hydrocarbon; R' is an independently selectable from hydrogen or C<sub>1</sub> to C<sub>3</sub> alkyl; A is NH or O, and 1 ≤ x+y ≤ 3, the method comprising mixing said drilling fluid with a delayed phase changing agent selected from the group consisting of aliphatic amine acids, salts of aliphatic amine acids and combinations thereof.

- [c2] The method of claim 1, wherein the delayed phase changing agent is delivered in the form of a pill, the pill including a carrier fluid, a viscosifier and the delayed phase changing agent.
- [c3] The method of claim 1, wherein the delayed phase changing agent is selected from the group consisting of ethylene diamine tetraacetic acid, alkali metal salts of ethylene diamine tetraacetic acid and combinations thereof.
- [c4] The method of claim 2, wherein the delayed phase changing agent is selected from the group consisting of ethylene diamine tetraacetic acid, alkali metal salts of ethylene diamine tetraacetic acid and combinations thereof.
- [c5] The method of claim 2, wherein the carrier fluid is an aqueous alkali salt solution.
- [c6] The method of claim 2, wherein the viscosifier is a

hydroxyethylcellulose.

- [c7] A method of controlling the wettability of a filtercake, wherein the filtercake is formed while drilling a subterranean formation using a drilling fluid includes: an oleaginous fluid; a non-oleaginous fluid; an amine surfactant having the structure



wherein R is a C<sub>12</sub>-C<sub>22</sub> aliphatic hydrocarbon; R' is an independently selectable from hydrogen or C<sub>1</sub> to C<sub>3</sub> alkyl; A is NH or O, and 1 ≤ x+y ≤ 3, the method comprising exposing said filtercake to a delayed phase changing agent selected from the group consisting of aliphatic amine acids, salts of aliphatic amine acids and combinations thereof.

- [c8] The method of claim 7, wherein the delayed phase changing agent is delivered in the form of a pill, the pill including a carrier fluid, a viscosifier and the delayed phase changing agent.
- [c9] The method of claim 7, wherein the delayed phase changing agent is selected from the group consisting of ethylene diamine tetraacetic acid, alkali metal salts of ethylene diamine tetraacetic acid and combinations thereof.
- [c10] The method of claim 8, wherein the delayed phase changing agent is selected from the group consisting of ethylene diamine tetraacetic acid, alkali metal salts of ethylene diamine tetraacetic acid and combinations thereof.
- [c11] The method of claim 8, wherein the carrier fluid is an aqueous

alkali salt solution.

[c12]        The method of claim 8, wherein the viscosifier is a hydroxyethylcellulose.